

**Missouri Assessment Program  
Spring 2002**

**Science**

**Released Items  
Scoring Guide**

**Grade 7**

<b>Session:</b>	<b>1</b>
<b>Item No.:</b>	<b>9</b>
<b>Page No.:</b>	<b>8</b>
<b>Standard:</b>	<b>IV.B.2 (Std 2)</b>
<b>Goals:</b>	<b>1.1</b>

Key Elements:

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8 newtons/8 N

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friction AND gravity

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Note: Air resistance is acceptable as friction.

Score Points:

2 points      two key elements

1 point      one key element

0 points      other

<b>Session:</b>	<b>1</b>
<b>Item No.:</b>	<b>10</b>
<b>Page No.:</b>	<b>9</b>
<b>Standard:</b>	<b>VII.D1. (Std 3)</b>
<b>Goals:</b>	<b>1.6, 1.10</b>

Key Elements:

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The new plant has the same traits as the parent plant.

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any response indicating that

- Because only a single parent is involved, the offspring has DNA that is identical to the DNA of the parent.
  - Because only a single parent is involved, the offspring has chromosomes that are identical to the chromosomes of the parent.
  - Because only a single parent is involved, the offspring has genes that are identical to the genes of the parent.
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Score Points:

2 points	two key elements
1 point	one key element
0 points	other

<b>Session:</b>	<b>2</b>
<b>Item No.:</b>	<b>7</b>
<b>Page No.:</b>	<b>6</b>
<b>Standard:</b>	<b>II.B.1 (Std 7)</b>
<b>Goals:</b>	<b>1.3, 3.4</b>

Key Element:

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Any one of the following:

- A larger sample size gives more reliable data.
  - More plants make one defective plant easier to dismiss.
  - Errors have less effect on results if averaged with a large number of correct data.
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Score Points:

1 point	one key element
0 points	other

<b>Session:</b>	<b>2</b>
<b>Item No.:</b>	<b>8</b>
<b>Page No.:</b>	<b>6</b>
<b>Standard:</b>	<b>II.B.1 (Std 7)</b>
<b>Goals:</b>	<b>1.1</b>

Key Elements:

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(a) either one of the following:

- How does fertilizer type affect tomato size/plant size?
- any question that implies fertilizer as the independent variable and tomato size/plant size as the dependent variable

Note: The question must be testable.

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(b) any one of the following:

- Chemical fertilizer will produce bigger tomatoes than organic fertilizer.
  - Organic fertilizer will produce bigger tomatoes than chemical fertilizer.
  - Tomato size/plant size is not related to fertilizer type.
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Score Points:

2 points	two key elements
1 point	one key element
0 points	other

<b>Session:</b>	<b>2</b>
<b>Item No.:</b>	<b>9</b>
<b>Page No.:</b>	<b>6</b>
<b>Standard:</b>	<b>II.B.1 (Std 7)</b>
<b>Goals:</b>	<b>1.3</b>

Key Elements:

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(Independent variable) fertilizer type

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(Dependent variable) tomato size/plant size

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Score Points:

2 points      two key elements

1 point      one key element

0 points      other